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Attorney Docket No.	Serial No.
56912US002	10/087,301

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In re Application of:	William K. Leonard		
Serial No.:	10/087,301	Examiner:	Michelle A. Lazor
Confirmation No.:	2113	Art Unit:	1734
Filed:	February 27, 2002		
For:	STRAND COATING DEVICE AND METHOD		

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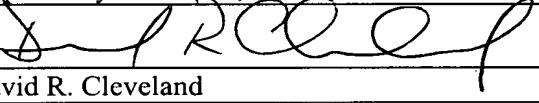
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Reply Brief [22 pages] in triplicate

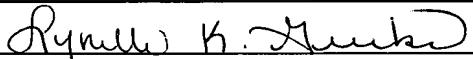
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Respectfully submitted,

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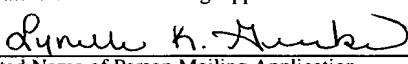
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Patent  
Docket No.: 56912US002

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: William K. Leonard		
Serial No.:	10/087,301	Group Art Unit: 1734
Confirmation No.:	2113	Examiner: Michelle A. Lazor
Filed:	February 27, 2002	
For:	STRAND COATING DEVICE AND METHOD	

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Pursuant to 37 CFR 1.10, I certify that three copies of this Reply Brief are being deposited on the date indicated below with the United States Postal Service "Express Mail Post Office to Addressee" service addressed to: <b>Mail Stop Appeal Brief – Patents, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.</b>		
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**REPLY BRIEF**

Mail Stop Appeal Brief – Patents  
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This is in reply to the Examiner's Answer mailed July 13, 2004. This Reply Brief is being filed in triplicate. The issues in this appeal are relatively straightforward and can be decided based on the Briefs. Appellant does not request an oral hearing.

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**ARGUMENTS OF APPELLANT**

Appellant thanks the Examiner for acknowledging that claims 49 and 50 are allowed (see section (3) at page 2 of the Examiner's Answer), and will not comment on the Examiner's averment that Appellant's statement of the status of the claims was "incorrect".

Appellant recommends that the Board compare allowed claims 49 and 50 to rejected claims 30 – 48. Claims 49 and 50 recite a device according to claim 30 wherein the coating is converted to have a specified average caliper range. Some of the asserted reasons for rejecting claims such as claim 30 might, *if upheld on appeal*, apply to claims 49 and 50 as well. Appellant is not asking the Board to withdraw the allowance of claims 49 and 50, but does note that the allowance of claims 49 and 50 helps make clear that claims 30 – 48 have been improperly (and in Appellant's view, inconsistently) rejected.

Section (10) in the Examiner's Answer repeats verbatim most of the Final Rejection. Appellant has already addressed the Final Rejection's arguments in his Brief on Appeal. This Reply Brief will address the further arguments set out in Section (11) (see pages 7 – 14) as they pertain to the rejections. Appellant's responsive arguments have been aligned with the order of argument employed in the Examiner's Answer.

Before turning to the rejections, Appellant notes that "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art", *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 447, 230 USPQ 416, 419 (Fed. Cir. 1986) (quoting *In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965)). Also, when parts in references are rearranged, the prior art "must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984), see MPEP §2144.04(VI)(C). Also, "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention", *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). These well-established standards have not been met in this examination.

**Was it proper provisionally to reject claims 30, 33, 34 and  
36 – 38 under the judicially created doctrine of obviousness-type  
double patenting as being unpatentable over claims 63 – 65, 67  
and 68 of copending Application Serial No. 09/757,955?**

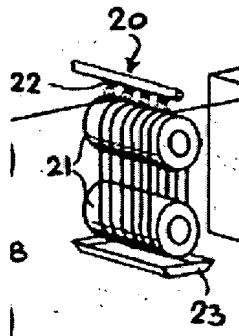
Co-pending Application Serial No. 09/757,955 has now issued as U.S. Patent No. 6,737,113 B2. Its withdrawn claims 63 – 65, 67 and 68 were as earlier noted refiled in a divisional (Application Serial No. 10/821,588 filed April 9, 2004) but have not yet been acted upon. The '588 application claims, *inter alia*, an improvement station and an apparatus for use in coating substrates including moving webs. The '588 application does not specifically claim a device for applying an uneven coating on a filamentous article. Web coaters and filament coaters are substantially different in design and construction. The Examiner's Answer says that "a substrate would be considered to include filamentous articles", but does not provide actual reasons why a person of ordinary skill in the art would conclude that the invention defined in claims 30, 33, 34 and 36 – 38 "is an obvious variation of the invention defined in a claim in the patent", as required by MPEP §804(II)(B)(1). Appellant thus repeats his request that the provisional obviousness-type double patenting rejection be withdrawn or deferred, and as previously stated avers that he will reconsider whether a suitable terminal disclaimer should be filed if the '588 application claims corresponding to '955 Application claims 63 – 65, 67 and 68 are allowed prior to issuance of a patent on present claims 30, 33, 34 and 36 – 38.

**Was it proper to reject claims 30, 32, 33, 35, 42 – 45 and 48  
under 35 USC §102(b) as being anticipated by  
U.S. Patent No. 2,570,173 (Von Kohorn)?**

The Examiner's Answer asserts at page 8 that:

*"Regarding the arguments presented by the Applicant directed towards the anticipation rejection by Von Kohorn, Examiner disagrees. Although Von Kohorn discloses a continuously operating device that completely saturates a yarn with a treatment liquid, the structure claimed by the Applicant is not different. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ 2d 1429, 1431-32 (Fed. Cir. 1997). Rather, the Applicant's apparatus operates differently, rather than being structurally unique. Apparatus claims cover what a device is, not what a device does. Hewlett-Packard Co. V. Bausch & Lomb, Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex Parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)."*

Appellant's rejected claims satisfy the novelty requirements set out in these cited cases. For example, rejected claim 30 recites a device "comprising a coating station that directly or indirectly applies a substantially uneven coating". This is both a structural and a functional limitation and clearly distinguishes Von Kohorn. Also, Appellant is not claiming only a coating station; Appellant is claiming a device comprising a coating station and an improvement station. Von Kohorn does not show the device, coating station or improvement station of rejected claims 30, 32, 33, 35, 42 – 45 or 48. Von Kohorn's device **20** saturates the yarn sufficiently to require a catch-trough **23**:



Such a device would not apply a “substantially uneven coating” as defined by Appellant (see e.g., paragraph 0023 at page 4 of Appellant’s written description).

In addition, Von Kohorn does not show the improvement station of rejected claims 30, 32, 33, 35, 42 – 45 or 48. Von Kohorn’s rolls 21 appear to have the same diameters, rotational speeds and periods of contact with the yarn. The effect of using such rolls may be better understood by reviewing paragraphs 0039 and 0040 in Appellant’s written description. The Examiner’s Answer has not demonstrated that Von Kohorn’s device would provide two or more rotating rolls that periodically contact and re-contact a wet coating at different positions along the length of a filamentous article as recited in rejected claims 30, 32, 33, 35, 42 – 45 and 48.

Appellant’s rejected claim 32 recites a device “wherein the coating station sprays the coating liquid onto the filamentous article or onto a roll”. This too is both a structural and a functional limitation and clearly distinguishes Von Kohorn. Von Kohorn’s device 20 sprays copious quantities of coating liquid but does not do so while also applying a “substantially uneven coating”.

Also, Appellant’s rejected claim 33 recites a device “wherein the coating station periodically applies the coating liquid and the application period can be adjusted to improve the uniformity of the coating”. This too is both a structural and a functional limitation and clearly distinguishes Von Kohorn. Von Kohorn’s device 20 has no such features.

Acknowledging that Von Kohorn continuously saturates his yarn and thus does not show application of a substantially uneven coating, the Examiner’s Answer adds a missing element to Von Kohorn’s device as follows:

*“One of ordinary skill in the art would know there must be at least an on/off valve to stop the flow of coating between runs. This would provide a means of coating unevenly the filamentous article.”* (see the Examiner’s Answer at page 8)

No such valve is shown or suggested in Von Kohorn. In any event, stopping a flow of coating material *between* runs is not the same as stopping (let alone altering) the flow *during* a run. Von Kohorn does not discuss startup or shutdown of his device. However, since Von Kohorn's catch-trough 23 is employed to recirculate the treating liquid, presumably an economical shutdown mode would involve stopping the yarn first and then shutting off the continuous liquid aftertreating device 20. Reversing this order would only waste yarn. Likewise, an economical startup mode would involve turning on the continuous liquid aftertreating device 20 and then starting up the yarn. The shutdown or startup of Von Kohorn's device would not be expected to apply a substantially uneven coating to Von Kohorn's yarn.

If for purposes of argument one of ordinary skill in the art were assumed to know of such a proposed on/off valve and to know that it could be used "to stop the flow of coating between runs", that same person would also know that the flow of coating material should not be stopped **during** a run. This is a basic precept in the coating art. Von Kohorn abides by that precept. He calls his device 20 a "continuous" liquid aftertreating device (see e.g., col. 4, line 5). A person having ordinary skill in the art would not deliberately stop the flow of coating material during a run.

The Examiner's Answer also asserts at page 8 that:

*"Again, although Von Kohorn does not specifically address voids or low spots in the initially applied treatment, the apparatus is capable of functioning as claimed, and therefore anticipates the claimed invention."*

Capability of functioning is not the issue. Immediately after the *Hewlett-Packard Co. v. Bausch & Lomb, Inc.* passage cited above, the same decision says that "an invention need not *operate* differently than the prior art to be patentable, but need only *be* different, 909 F.2d 1469, 15 USPQ2d 1528. Appellant's claimed devices are different, for at least the reasons explained above.

The Examiner's Answer also asserts at pages 8 – 9 that:

*"Additionally, assuming uneven voided coating is dispensed onto the filamentous article by turning the apparatus on and off, the coating would be converted to a void-free coating by contact with the rolls disclosed by Von Kohorn as claimed in Claim 48, since the filamentous article is wound around the rolls several times, thereby spreading the coating evenly."*

No proper basis has been provided for assuming that a “voided coating” (which Appellant notes is not recited in all the rejected claims, but is recited in claim 48) would be “dispensed onto the filamentous article by turning the apparatus on and off” *during* a run. As noted above no proper basis has been given for operating the proposed valve during a run rather than between runs. Also, if Von Kohorn’s applicator were turned off then no coating would be applied, and if Von Kohorn’s applicator were turned on then a saturating rather than a voided coating would be applied. In any event, no proper basis has been provided for assuming that the proposed valve could be turned on and off sufficiently quickly or that the overall flow would be sufficiently well controlled to apply an uneven voided coating and then convert such a coating to a void-free coating. Note in this regard that in Appellant’s Examples 1 through 5, a drip applicator was employed at flow rates ranging from 0.027 cc/min (Example 1) to 0.0019 cc/min (Example 5), depositing 0.0054 to 0.00026 cc of coating liquid per meter of strand length. These are fairly low and carefully-controlled deposition rates, and would be difficult to achieve using the proposed coating material on/off valve and Von Kohorn’s device **20**. Appellant does not intend by this line of argument to imply that his claims could not be interpreted to cover a device having a coating station with an external on/off valve or multiple spray heads, or a device employing flow rates other than those exemplified in Appellant’s working Examples. Appellant is instead merely pointing out that the Examiner’s proposed modification of Von Kohorn involves manually (and in this context, repeatedly) turning a valve on and off during a run and that doing so would not necessarily apply an uneven voided coating and convert such a coating to a void-free coating as alleged in the Examiner’s Answer.

The Examiner’s Answer has not demonstrated that Von Kohorn’s provides a device as recited in rejected claims 30, 32, 33, 35, 42 – 45 or 48. The rejection of these claims as anticipated by Von Kohorn should be reversed.

**Was it proper to reject claim 31 under 35 USC §102(b)  
as anticipated by or, in the alternative, under  
35 USC §103(a) as obvious over Von Kohorn?**

The Examiner's Answer asserts at page 9 that:

*"Regarding the arguments presented by the Applicant directed towards the obviousness rejection by Von Kohorn, Examiner disagrees. As stated in the Final Office Action, it would have been obvious to use dripping means to conserve coating material and prevent excess coating material from being wasted in the coating area by spraying."*

As noted earlier by Appellant, Von Kohorn employs a catch trough 23 and thus has no waste problem and no reason to change his spray heads 22 to drip applicators.

The Examiner's Answer also asserts at page 9 that:

*"Applicant argues the prior art uses several continuously operating spray nozzles, however as stated above, the structure claimed by the Applicant is not different."*

Appellant's rejected claim 31 recites a device "wherein the coating station drips the coating liquid onto the filamentous article or onto a roll" and (as recited in Claim 30) "applies a substantially uneven coating". These features would not be provided by Von Kohorn's several continuously operating spray nozzles, which flood and saturate Von Kohorn's yarn. Appellant's claimed structure is different from Von Kohorn's device.

The Examiner's Answer also asserts at page 9 that:

*"One of ordinary skill in the art would know there must be at least an on/off valve to stop the flow of coating between runs. This would provide a means of coating unevenly the filamentous article."*

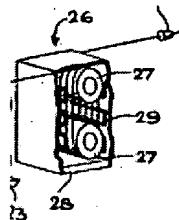
These arguments have been addressed above and in the interest of brevity will not be readdressed here.

The Examiner's Answer also asserts at page 9 that:

*"Also, providing roll contacts after the last drip applicator and before a dryer is not claimed in the apparatus, and is therefore irrelevant."*

This comment is not understood. It was apparently made in response to Appellant's argument that "the Final Rejection's proposed modification of Von Kohorn's device would not provide any roll contacts after the last drip applicator and before dryer 26". Appellant's rejected claim 31 recites application of a coating and contact and re-contact with the wet coating by improvement station rolls. In a coating device such as Von Kohorn's in which a

dryer is employed, the recited contact and re-contact with a wet coating would need to take place before or possibly in the dryer since after the dryer the applied coating would no longer be wet. In any event, the rolls 27 in Von Kohorn's dryer 26 appear to have the same diameters, rotational speeds and periods of contact with the yarn:



and would not provide two or more rotating rolls that periodically contact and re-contact a wet coating at different positions along the length of a filamentous article as recited in rejected claim 31.

The Examiner's Answer asserts at pages 9 – 10 that:

*"In addition, although the apparatus of Von Kohorn is capable of containing several drip applicators and may be less likely to produce a completely uniform wet coating, the claims are limited to improving the uniformity of the coating, and is not specific as to how much the uniformity is improved; therefore Von Kohorn renders the claim unpatentable."*

Von Kohorn's device does not contain "drip applicators" and no capability for converting its spray heads 22 to drip applicators is shown. The proposed "on/off valve" would not do so. If the valve is on then the spray heads will produce streams of coating liquid. If the valve is off then no coating liquid would be applied.

The Examiner's Answer asserts at page 10 that:

*"Finally, although Von Kohorn uses a catch trough to collect and possibly re-circulate excess treating liquid, the excess liquid may be contaminated and may need to be filtered before being reintroduced to the system and re-sprayed onto the filamentous article. Therefore one in the art would be more apt to use dripping means to conserve coating material rather than or in addition to drip collection means in order to avoid contamination problems."*

Von Kohorn shows no such filtration. If filtration were employed, it would not prevent Von Kohorn from using his catch trough 23 and would not provide a proper basis for eliminating Von Kohorn's spray applicators and replacing them with a drip applicator. Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so", see *In re Gordon* and MPEP

§2143.01. Von Kohorn provides no such suggestion or motivation. As Appellant has previously pointed out, Von Kohorn continuously supplies liquid to a ganged set of spray nozzles **22** distributed over the length of a roller **21** wrapped with several turns of yarn. This approach completely saturates the yarn and avoids the risk of incomplete yarn treatment. A proposed modification cannot change the principle of operation of a reference, see MPEP §2143.01. The proposed substitution of a drip applicator for Von Kohorn's spray nozzles improperly changes Von Kohorn's principle of operation, by doing away with a complete saturation spray applicator system that clearly is an integral part of Von Kohorn's continuous liquid treatment apparatus, and by risking an incomplete yarn treatment that Von Kohorn clearly would avoid.

The Examiner's Answer also asserts at page 10 that:

*"Regarding In re Mills, 16 USPQ2d 1490 (Fed. Cir. 1990) and In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984), as Applicant has pointed out, the above cases involve obviousness rejections, not anticipation rejections. In those cases there needed to be motivation to modify the apparatus. However, in this case the apparatus disclosed by Von Kohorn does not need to be modified; rather the operation of the apparatus would need to be modified. Therefore the apparatus is itself is not unique, and therefore is anticipated."*

As described, Von Kohorn's apparatus would not apply a substantially uneven coating. The Examiner's Answer proposes to use an on/off valve (not shown or suggested in Von Kohorn) to turn on and off the supply of coating material during a coating run (not shown or suggested in Von Kohorn and not something that would be done by a person having ordinary skill in the art) and to do so repeatedly (not shown or suggested in Von Kohorn) and with suitable timing (also not shown or suggested in Von Kohorn) so that a substantially uneven coating would be applied to Von Kohorn's yarn and converted to a more uniform coating by Von Kohorn's rolls. This is a bit like saying that the invention of the light bulb anticipated the invention of the strobe lamp, if one could only find an operator who could plug and unplug a light bulb fast enough. The Examiner's Answer proposes to do more than modify the operation of Von Kohorn's device, and proposes to do so in ways that Von Kohorn's device would never be employed.

The Examiner's Answer also asserts at page 10 that:

*“Finally, regarding the rejection of Claim 33, Von Kohorn is considered to disclose a coating station that periodically applies the coating liquid wherein the application period may be adjusted by turning the spray nozzles on and off as discussed above.”*

Von Kohorn nowhere shows or suggests a device “wherein the coating station periodically applies the coating liquid and the application period can be adjusted to improve the uniformity of the coating”. The periodic application and adjustment proposed in the Examiner’s Answer are based on impermissible hindsight reasoning.

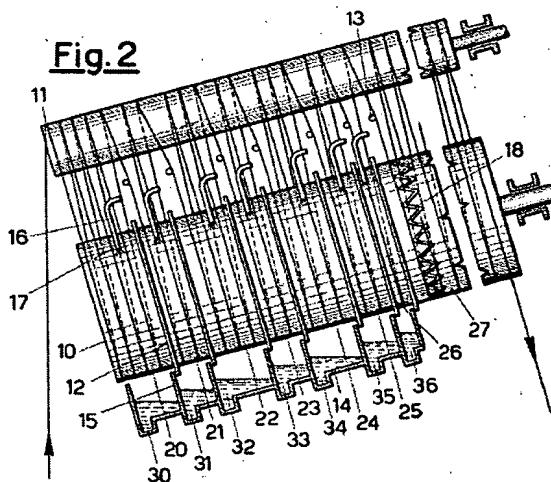
The rejection of Claim 31 as anticipated by or obvious over Von Kohorn should be reversed.

**Was it proper to reject claims 30 – 33, 36 – 45 and 48  
under 35 USC §102(b) as being anticipated by  
U.S. Patent No. 2,867,108 (Severini)?**

The Examiner's Answer asserts at page 10 – 11 that:

*"Regarding the arguments presented by the Applicant directed towards the anticipation rejection by Severini, Examiner disagrees. As in von Kohorn above, Severini discloses a continuously operating device that completely saturates a yarn with a treatment liquid; however, the structure claimed by the Applicant is not different. [repeated citations omitted] One of ordinary skill in the art would know there must be at least an on/off valve to stop the flow of coating between runs. This would provide a means of coating unevenly the filamentous article. Also, since Severini discloses an orifice that is placed in a simple pipe (column 4, lines 43-49) one of ordinary skill in the art would know to use one of several sized orifices, depending on the application, and is therefore considered to disclose a pipe that would be capable of dripping."*

Appellant's rejected claims satisfy the novelty requirements set out in the cases cited in the Examiner's Answer, and structurally and functionally distinguish Severini's device. For example, Severini does not show the device or coating station of rejected claims 30 – 33, 36 – 45 or 48. Appellant has already pointed out that Severini's device employs "relatively abundant quantities of treatment liquors" that are "abundantly fed" to roller **10** from the pipes **16** (see e.g., col. 4, lines 44 – 49 and col. 5, lines 43 – 63):



Appellant has also pointed out that the applied processing liquor forms a "relatively abundant" liquid film (see e.g., col. 5, lines 57 – 60) which wets the uphill faces of each flange **12** and falls into the cells in trough **14** (see e.g., col. 5, lines 44 – 52). Severini's

device saturates the yarn and does not apply a “substantially uneven coating” as recited in rejected claims 30 – 33, 36 – 45 and 48.

Appellant’s rejected claim 31 recites a device “wherein the coating station drips the coating liquid onto the filamentous article or onto a roll”. This too is both a structural and a functional limitation and clearly distinguishes Severini. Severini’s pipes **16** do not drip processing liquor onto the yarn.

Appellant’s rejected claim 32 recites a device “wherein the coating station sprays the coating liquid onto the filamentous article or onto a roll”. This too is both a structural and a functional limitation and clearly distinguishes Severini. Severini’s pipes **16** can employ “shower nozzle” spray applicators (see col. 4, lines 47 – 48) but do not do so while also applying a “substantially uneven coating” as recited in claim 31.

Also, Appellant’s rejected claim 33 recites a device “wherein the coating station periodically applies the coating liquid and the application period can be adjusted to improve the uniformity of the coating”. This too is both a structural and a functional limitation and clearly distinguishes Severini. Severini’s device has no such features.

In the interest of brevity, Appellant incorporates by reference his arguments given above for Von Kohorn with respect to the proposed addition and use of an on/off valve in Severini’s device.

With respect to the Examiner’s Answer’s assertions regarding resizing Severini’s cited orifice, Appellant notes Severini’s orifices are said to be “suitably positioned”, not “suitably sized” (see col. 4, lines 47 – 48). As noted above they shower the yarn with “abundant quantities” of processing liquor. The Examiner’s Answer has not provided any proper basis in Severini for changing Severini’s pipes **16** to “a pipe that would be capable of dripping”.

The Examiner’s Answer asserts at page 11 that:

*“One of ordinary skill in the art would be motivated to use dripping means to conserve coating material and prevent excess coating material from being wasted in the coating area by spraying. Additionally, assuming uneven voided coating is dispensed on the filamentous article by turning the apparatus on and off, the coating would be converted to a void-free coating by contact with the rolls disclosed by Severini as claimed in Claim 48, since the filamentous article is wound around the rolls several times, thereby spreading the coating evenly.”*

In the interest of brevity, Appellant can address these assertions by incorporating by reference his arguments given above with respect to Von Kohorn. Conservation of Severini's processing liquor would be unnecessary in view of Severini's drain trough **14**. Severini says that recovery or the processing liquors "is essential to the economy of the process" (see e.g., col. 2, lines 6 – 7) and thus Severini would not remove his drain trough **14** and its associated recirculation system. Severini uses sufficient processing liquor to cover the roller in each processing zone (see e.g., col. 5, liners 29 – 37), an aim that runs counter to the proposed substitution of drip applicators for Severini's pipes **16**. Severini stresses that his device treats a yarn with reduced processing time (see e.g., col. 6, lines 4 – 58) and says that a reduction in the amount of processing liquor employed would undesirably lengthen the processing time (see e.g., col. 7, lines 29 – 39). The proposed substitution of a drip applicator for Severini's pipes **16** is thus directly contrary to Severini's own stated goals.

No processing liquor on/off valve is shown in Severini, and the Examiner's Answer has not provided any proper basis in Severini for shutting off the supply of processing liquor during a run, for repeatedly turning such supply off and on during a run, or for doing so with sufficient rapidity and with suitable timing to deposit a substantially uneven coating. As to claim 48, the Examiner's Answer has not provided any proper basis in Severini for applying an uneven voided coating and converting the coating to a void-free coating through contact with improvement station rolls. Note that Severini says the operating speed "should not be substantially less than 60 meters per minute and it is desirable that it should be close to or even more than 100 meters per minute" (see e.g., col. 6, lines 12 – 15 and 46 – 48). The Examiner's Answer assumes that an operator would repeatedly operate an unseen valve on Severini's device to turn on and off the flow of coating material during a run while the yarn races through the machine at high speed, in order to apply a substantially uneven coating to the yarn. No person having ordinary skill in the art would ever operate Severini's device in such fashion, as doing so would require constant manual operation of the valve and would be expected to produce large lengths of untreated yarn.

The Examiner's Answer also asserts at page 11 that:

*"Finally, regarding the rejection of Claim 33, Severini is considered to disclose a coating station that periodically applies the coating liquid wherein the application period may be adjusted by turning the spray nozzles on and off as discussed above."*

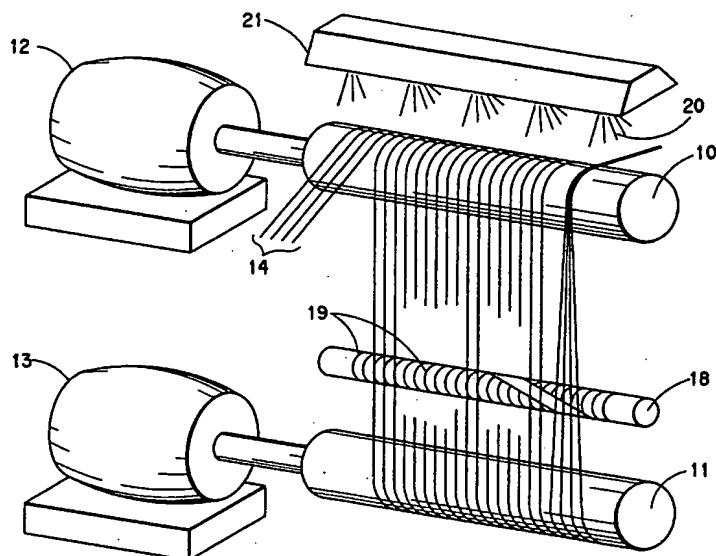
In the interest of brevity, Appellant can address these assertions by incorporating by reference his arguments given above with respect to Von Kohorn. Severini nowhere shows or suggests

a device “wherein the coating station periodically applies the coating liquid and the application period can be adjusted to improve the uniformity of the coating”. The periodic application and adjustment proposed in the Examiner’s Answer are based on impermissible hindsight reasoning.

The Examiner’s Answer has not demonstrated that Severini provides a device as recited in rejected claims 30 – 33, 36 – 45 and 48. This rejection should be reversed.

**Was it proper to reject claims 30 – 34, 36, 38, 39, 42 – 46 and 48  
under 35 USC §102(b) as being anticipated by  
U.S. Patent No. 5,034,250 (Guertin)?**

The Examiner's Answer raises essentially the same arguments as to Guertin as it raised as to Von Kohorn and Severini. Rather than repeat those arguments and prolong this reply brief, Appellant incorporates by reference his arguments given above for Von Kohorn and Severini with respect to the proposed addition and use of an on/off valve in Guertin's device, shown below:



Appellant also notes that like Von Kohorn and Severini, Guertin saturates the yarn using spray heads, does not show an on/off valve to control the treatment liquid, and nowhere says that the treatment liquid should be turned off (let alone repeatedly turned off and on) during a run. There is thus no reason to assume as asserted on page 12 of the Examiner's Answer that an on/off valve to stop the flow of coating *between* runs would "provide a means of coating unevenly the filamentous article", no reason to assume that "uneven voided coating" would be "dispensed on to the filamentous article by turning the apparatus on and off", and no reason to assume that the resulting coating "would be converted to a void-free coating by contact with the rolls disclosed by Guertin as claimed in Claim 48". Appellant notes in this regard that Guertin discloses even higher operating speeds than Severini ("ranging from as low as 200 to as high as 2000 meters per minute", see column 3, lines 36-37), employs an operating speed of 550 meters per minute in his working examples, and is concerned throughout with the possibility of threadline breaks. The Examiner's Answer assumes that an

operator would repeatedly operate an unseen valve on Guertin's device to turn on and off the flow of coating material during a run while the yarn races through the machine at high speed, in order to apply a substantially uneven coating to the yarn. No person having ordinary skill in the art would ever operate Guertin's device in such fashion, as doing so would require constant manual operation of the valve and would be expected to produce large lengths of untreated yarn and would likely cause yarn breakage.

There is also no basis for the assertion on page 14 of the Examiner's Answer that Guertin "is considered to disclose a coating station that periodically applies the coating liquid wherein the application period may be adjusted by turning the spray nozzles on and off as discussed above". As was the case with the similar assertions regarding Von Kohorn and Severini, the periodic application and adjustment proposed in the Examiner's Answer are based on impermissible hindsight reasoning.

Similarly, there is no basis for the assertion on page 14 of the Examiner's Answer that:

*"Guertin discloses ... wherein a voided coating is applied to the filamentous article and converted by contact with the rolls to a void-free coating (Figures; column 2, lined 56-column 3, line 15)."*

Guertin has absolutely no disclosure of the application of a voided coating.

The rejection of claim 48 as being anticipated by Guertin should be reversed.

**Was it proper to reject claim 31 under 35 USC §102(b)  
as anticipated by or, in the alternative, under  
35 USC §103(a) as obvious over Guertin?**

The Examiner's Answer raises essentially the same arguments with respect to the 35 USC §102 (b)/103(a) rejection based on Guertin (see the Examiner's Answer at pages 12 – 13) as it raised for the similar rejection based on Von Kohorn. Rather than repeat those arguments and prolong this Reply Brief, Appellant incorporates by reference his arguments given above for Von Kohorn with respect to the proposed substitution of a drip applicator for Guertin's spray manifold 20. There is no basis in Guertin for making such a substitution, and no basis for the Examiner's Answer's assertion at pages 13 – 14 that:

*"one of ordinary skill in the art would be more apt to use dripping means to conserve coating material rather than or in addition to drip collection mans in order to avoid contamination problems."*

Appellant noted previously that Guertin does not expressly show a catch trough. However, Severini and Von Kohorn make clear that such a catch trough and recirculation are customarily employed, and Guertin refers to a customary housing for the rolls and manifold (see col. 3, lines 10 – 12). As discussed above, Severini also makes clear that application of relatively abundant quantities of the processing liquor and its subsequent recovery are essential measures in yarn treatment. The Examiner's Answer has not provided a proper basis for ignoring these features and requirements taken directly from the cited references and instead substituting a drip applicator that is not shown or suggested in any of them. A proposed modification cannot change the principle of operation of a reference, see MPEP §2143.01. A person having ordinary skill in the art would not replace Guertin's spray heads with a drip applicator, as doing so would (as Severini teaches) cause an undesirable increase in processing time and would also be expected to produce defective untreated yarn.

The rejection of Claim 31 as anticipated by or obvious over Guertin should be reversed.

**Was it proper to reject Claim 47 under 35 USC §103(a)  
as being unpatentable over Guertin as applied to claim 30  
above, in view of U.S. Patent No. 4,059,068 (Guillermin et al.)?**

The Examiner's Answer asserts at page 14 that:

*"Regarding the arguments presented by the Applicant directed toward the obviousness rejection by Guertin in view of Guillermin et al., Examiner disagrees. Guillermin et al. is included to show the teaching using grooved rolls for treatment of filamentary products is known, and would have been obvious to use in order to reduce friction and to place the filamentary product in a desired location. Guillermin et al. was not included to show nonuniform treatment of yarn."*

As noted above, it is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art", *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 447, 230 USPQ 416, 419 (Fed. Cir. 1986). Guillermin et al. clearly saturate their yarn, and expressly say that their device avoids non-uniform treatment (see e.g., col. 1, lines 23 – 34).

Rejected claim 47 recites a coating station that applies a substantially uneven coating to a filamentous article, and an improvement station having grooved rolls that contact and re-contact the wet coating at different positions along the length of the filamentous article, wherein the number or periods of the rolls improve the uniformity of the coating. The improvement station in such a device picks up coating from high spots and places it back down in lower spots (see e.g., paragraph 0052).

Addition of Guillermin et al.'s device to Guertin's spray treatment device would not provide a device as recited in claim 47. The resulting combination still would not apply a substantially uneven coating. The Examiner's Answer can not properly ignore this missing feature in its proposed combination.

The rejection of claim 47 as being unpatentable over Guertin in view of Guillermin et al. should be reversed.

## CONCLUSION

The provisional obviousness-type double patenting rejection does not provide actual reasons why a person of ordinary skill in the art would conclude that the invention defined in claims 30, 33, 34 and 36 – 38 “is an obvious variation of the invention defined in a claim in the patent”, as required by MPEP §804(II)(B)(1), and thus for at least this reason should be withdrawn.

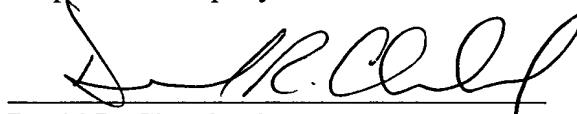
Von Kohorn, Severini and Guertin each saturate their yarn and do not apply a substantially uneven coating. None of these references anticipate Appellant’s claims, whether or not the proposed but unseen on/off valve is taken into account. Such a valve, if present, might be used to shut off a supplied liquid between runs but would not be used by a person having ordinary skill in the art repeatedly to turn the liquid supply on and off during a run.

Neither Von Kohorn nor Guertin makes obvious Appellant’s claims. In particular, a person having ordinary skill in the art would not modify these references by replacing their saturating spray heads with a drip applicator or by turning such a drip applicator on and off during a run.

Even if the Guertin and Guillermin et al. devices were combined, the resulting combination would not apply a substantially uneven coating to a filamentous article.

The provisional obviousness-type double patenting rejection should be withdrawn or deferred, and the 35 U.S.C. §102(b) and 35 U.S.C. §103(a) rejections should be reversed.

Respectfully submitted on behalf of 3M Innovative Properties Company



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